REMARKS

This Amendment responds to the Office Action mailed August 9, 2007, in the above-identified application. Based on the foregoing amendments and the following comments, reconsideration and allowance of the application are respectfully requested.

Claims 1-27 were previously pending in the application. By this Amendment, claims 21, 22, 26 and 27 have been canceled. No claims have been amended. Accordingly, claims 1-20 and 23-25 are currently pending, with claims 1, 16-20, 23 and 25 being independent claims.

The Examiner has rejected claims 21-22 under 35 U.S.C.§ 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 21 and 22 have been canceled.

The Examiner has rejected claims 1, 2, 9, 16 and 21-27 under 35 U.S.C.§ 103(a) as unpatentable over Chow (U.S. 6,771,966). Claims 3-8 and 10-15 are rejected under 35 U.S.C.§ 103(a) as unpatentable over Chow in view of Jain et al. (U.S. 2005/0075104). Claims 17-20 are rejected under 35 U.S.C.§ 103(a) as unpatentable over Chow in view of Discenzo et al (U.S. 2004/0267395). The rejections are respectfully traversed.

Chow discloses a system and method for planning the deployment of a plurality of receiver/transmitter pairs such that wireless communication links may be established meeting design criteria and allowing for the addition of future wireless communication links. Link analysis is accomplished in multiple orders of analysis, such as a master planning analysis, a wireless link design analysis, a field verification analysis, and/or an in-service analysis (Abstract). The set of possible links connecting the various nodes of an RF network are first analyzed to identify the subset of practicably realizable links, i.e., those links which are within effective range, which are within line of sight and which have an acceptable path loss in view of system gains (col. 3, lines 27-32). A first order analysis may analyze the links in only two dimensions (Col. 3, lines 55-60). A second order analysis may provide a three-dimensional analysis of the links taking into account terrain features (Col. 4, lines 10-38). A third order analysis may be in the form of empirical field verification (Col. 4, line 60 to Col. 5, line 2). A fourth order analysis may provide in-service analysis of link quality measurements, such as bit

error rate, carrier-to-interference ratio, signal-to-noise ratio, link outage times and the like (Col. 5, lines 15-35). As discussed below, Chow does not disclose or suggest the claimed invention.

Jain was published on April 7, 2005, and is assigned to Microsoft Corporation. It is submitted that Jain falls under 35 U.S.C.§ 103(c)(1), since it qualifies as prior art only under 35 U.S.C. § 102(e) and is commonly owned with the present application. Therefore, Jain does not preclude patentability of the claimed invention. Accordingly, withdrawal of the rejection of claims 3-8 and 10-15 based on Jain is respectfully requested.

Regarding claim 1, Chow does not disclose or suggest a method for determining placement of Internet taps in a multi-hop wireless mesh network, wherein the network employs a contention based media access control protocol. Instead, Chow discloses an RF planning tool for the placement of transmitter/receiver paths while minimizing interference (col. 1, lines 23-26). Furthermore, Chow does not disclose or suggest a method for determining placement of Internet taps based on connectivity information comprising link capacity constraints, node capacity constraints and node demands for flow. In addition, Chow contains no disclosure or suggestion of selecting an Internet tap to be added to a set of currently opened Internet taps wherein the selected Internet tap increases the node demands satisfied when opened together with the Internet taps in the set of currently open Internet taps. By contrast, Chow describes a system for planning deployment of receiver/transmitter pairs based on RF considerations, such as effective range, line of sight, path loss and interference analysis. Chow contains no disclosure of analyzing connectivity information for the network, comprising link capacity constraints, node capacity constraints and node demands for flow. Chow analyzes RF parameters rather than network parameters.

The Examiner has noted that Chow describes an iterative process. Applicant concedes that iterative processes are commonly used. However, the steps of the claimed iterative process are very different from the steps of the iterative process described by Chow. As discussed above, Chow fails to disclose or suggest important limitations of claim 1. For at least these reasons,

claim 1 is clearly and patentably distinguished over Chow, and withdrawal of the rejection is respectfully requested.

Claims 2-15 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Claim 16 is directed to a computer-readable medium containing instructions for performing a method that corresponds to the method of claim 1. Claim 16 is clearly patentable over Chow for the same reasons as claim 1, and withdrawal of the rejection is respectfully requested.

Claim 17 is directed to a method for determining placement of Internet taps in a multi-hop wireless mesh network and requires, in part, selecting the Internet tap that results in the largest increase in the sum of satisfied node demands over a set of time intervals.

Claim 17 is distinguished over Chow for the reasons discussed above in connection with claim 1. Discenzo does not provide the teachings that are lacking in Chow. Discenzo discloses a system and method for controlling a process having one or more motorized pumps and associated motor drives, which provide for optimized process performance according to one or more performance criteria (Abstract). The Discenzo disclosure is totally unrelated to the claimed invention, which relates to determining placement of Internet taps in a multi-hop wireless mesh network. Neither Chow nor Discenzo discloses or suggests the steps for determining placement of Internet taps defined by claim 17. For these reasons and for the reasons discussed above in connection with claim 1, claim 17 is clearly and patentably distinguished over Chow in view of Discenzo, and withdrawal of the rejection is respectfully requested.

Claim 18 is directed to a computer-readable medium containing instructions for performing a method that corresponds to the method of claim 17. Claim 18 is clearly patentable over Chow in view of Discenzo for the same reasons as claim 17, and withdrawal of the rejection is respectfully requested.

Claim 19 is directed to a method for determining placement of Internet taps in a multi-hop wireless mesh network and requires, in part, selecting an Internet tap, from the set of potential Internet taps to be opened, that satisfies the largest node demand, adding the selected

Internet tap to the set of currently opened Internet taps, wherein each node's demand is the node's maximum demand over all time intervals. Chow, taken individually or in combination with Discenzo, contains no disclosure of a method for determining placement of Internet taps as defined by claim 19. For these reasons and for the reasons discussed above in connection with claims 1 and 17, claim 19 is clearly and patentably distinguished over Chow in view of Discenzo, and withdrawal of the rejection is respectfully requested.

Claim 20 is directed to a computer-readable medium containing instructions for performing a method that corresponds to the method of claim 19. Claim 20 is clearly patentable over Chow in view of Discenzo for the same reasons as claim 19, and withdrawal of the rejection is respectfully requested.

Claim 23 is directed to a method for reducing potential placement locations of Internet taps in a multi-hop wireless mesh network by identifying equivalent classes of nodes in the network which may be serviced by the same Internet tap. The method comprises accepting equivalence class information for the network, determining whether a first equivalence class is covered by a second equivalence class, and eliminating the first equivalence class from consideration as a potential placement location for an Internet tap if the first equivalence class is covered by the second equivalence class.

The Examiner asserts that Chow teaches selecting desired location for an Internet tap in order to increase its coverage of service area, with reference to column 2, lines 47-58. Applicant contends that Chow contains no disclosure whatever of equivalence classes of nodes in a network. As described in the subject application, each equivalence class is represented by the set of nodes that are reachable via a wireless link (pg. 13, paragraph 0036). Chow is utterly devoid of any teaching regarding equivalence classes. For these reasons and the reasons discussed above in connection with claim 1, claim 23 is not anticipated or made obvious by Chow, and withdrawal of the rejection is respectfully requested. Claim 24 depends from claim 23 and is patentable over Chow for at least the same reasons as claim 23, and withdrawal of the rejection is respectfully requested.

Claim 25 is directed to a computer-readable medium containing instructions for performing a method that corresponds to the method of claim 23. Claim 25 is patentable over Chow for the same reasons as claim 23, and withdrawal of the rejection is respectfully requested.

Based upon the above discussion, claims 1-20 and 23-25 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

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